

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-15 (cancelled)

16. (original) In a detector including a sensing element responsive to the presence of a pre-selected species, said sensing element characterized as subject to deactivation in the presence of selected volatile organic materials, the improvement being location of a polymer membrane between said sensing element and any ambient atmosphere, said polymer membrane capable of allowing the pre-selected species to pass therethrough to said sensing element and said polymer membrane capable of preventing sufficient selected volatile organic materials to pass therethrough to said sensing element whereby said sensing element is deactivated.

17. (original) The detector of claim 16 wherein said pre-selected species is carbon dioxide.

18. (original) The detector of claim 17 wherein said polymer membrane is polybenzimidazole.

19. (original) The detector of claim 16 wherein said polymer membrane has a meniscus-shape.

20. (original) A temperature gas valve comprising a gas separation module including a substrate containing at least one opening therein and a polymer material contained within the opening of said substrate, said polymer material characterized as forming a meniscus-shaped separator within said opening, said temperature gas valve characterized as preventing a pre-selected gas to pass through said polymer material at a first temperature, but allowing said pre-selected gas to pass through said polymer material at a second temperature.

21. (original) The temperature gas valve of claim 20 wherein said first temperature and said second temperature are at least 1°C apart.